Reform of Professional English Teaching under the "Four-Four System" Training Model

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Abstract—**In order to adapt to the construction of Applied Technology University of Ministry of Education, Polytechnic College of Hebei University of Science and Technology has constructed the "Four-Four System" training model. Firstly, this paper briefly introduces the "Four-Four System" training mode, analyses the current situation and problems of the teaching of professional English in Jianhuan, focuses on the reform and practice of professional English teaching under the new training mode, and puts forward that professional English should pay attention to the combination of "professional" and "English", with teaching output as the target group. In weaving teaching, full use of information technology should be made to carry out the exploration of "flip classroom" or "mixed teaching". Finally, suggestions and prospects are put forward for the teaching difficulties encountered in the process of teaching reform.**

Keywords—application-oriented undergraduate; four-four-system; hybrid teaching; teaching output; cloud class

I.   PREFACE

Professional English is a basic professional course offered by higher engineering colleges. It is not only an important part of college foreign language teaching, but also an important part of professional teaching. While consolidating basic English, students are required to be proficient in reading relevant foreign professional literature in order to grasp the latest developments of their major and have a certain writing ability in EST. It is not only the extension of basic applied teaching, but also the combination and practice of basic English and professional teaching. It is an important tool to cultivate students' comprehensive ability and plays an important role in students' comprehensive quality education [1][2].

Beginning in 2014, the State Council has guided a number of non-research-oriented general undergraduate colleges and universities to transform into applied technology-oriented ones [3]. In order to adapt to the construction of Applied Technology Universities of the Ministry of Education and help to realize the goal of open, innovative and internationalized applied universities, Polytechnic College of Hebei University of Science and Technology has constructed the "Four-Four System" talent training system, which is divided into four directions: applied technology, technology research, innovation and entrepreneurship, and international development. The teaching reform of professional English should correspond to the above four training objectives, improve or change the

teaching contents and methods, take the cultivation of students' abilities as the core, social needs as the guide, and professional needs as the main line, and implement the cultivation of practical and innovative abilities into specific teaching links.

II.   CURRENT TEACHING

At present, the English course for building environment and energy application engineering is offered in the second semester of the third grade. It has a total of 32 hours, four hours a week, eight weeks. The nature of the course is limited to elective courses. The teaching of professional foreign languages is still relatively weak and backward as a whole. The main reasons are as follows:

A.   The Teaching Mode is Single and Dull

In the way of classroom teaching, the teaching of professional English is still dominated by teachers' teaching. At present, the course textbooks have not been updated for many years, and the contents of the textbooks are monotonous. They are basically arranged for the original textbooks of professional knowledge, with fewer exercises after class, poor testability and applicability, and the teaching contents are mostly reading and oral translation of textbooks. The basic performance of the teaching process is to learn professional courses in English. Whether it is the improvement of language skills or the acquisition of professional knowledge, the teaching effect is not better than that of bilingual courses. If we teach according to the textbook, the teaching content is very dull. It seems that new lessons are taught every day after a semester. In fact, the teacher leads the students to translate references, and the training of skills is very simple. It's very difficult to finish 32 classes for Chinese majors, not to mention a whole book of English professional knowledge. If teachers actively try to improve teaching methods and contents, the utilization of textbooks rate is very low.

B.   Students' English Foundation is Weak

This is particularly evident for the students of Applied Undergraduate course. Public English foundation is not very good. Pre-class statistical survey shows that the passing rate of CET-4 is only about 1/4, and the students who pass CET-6 are rare. On the one hand, they have great enthusiasm for learning English. They are generally aware of the importance of English. On the other hand, they show great fear of difficulties. Especially in the face of more complex professional vocabulary,

coupled with the single teaching form of teachers, students' enthusiasm for learning will decrease, and after-school students' learning about extracurricular aspects will also decline. Even less.

C. Teachers' English needs to be Improved

Professional English teachers are all teachers of various professional courses, non-English majors, in order to achieve good results in professional English teaching, they need to pay a lot of efforts. Although teachers have no problems in explaining and disseminating knowledge, they are still weak in the teaching and application of English skills. In the process of concatenation of curriculum content and interaction with students, it is also difficult to use English.

D. Insufficient Guidance of School Policy

On the one hand, schools do not attach much importance to the teaching of professional English and do not have relevant incentive policies to encourage teachers to carry out curriculum reform and optimization; on the other hand, schools generally invest more in the training of teachers in public English teaching, but the systematic training of professional English teachers is rare. Although ESP teachers have been insisting on learning and improving, compared with systematic training, the progress is still slow and the effect is very little.

III. EXPLORATION OF TEACHING PRACTICE

In view of the above problems and teaching experience, the author has made some useful explorations and attempts in teaching methods in the past two years. Considering that it is difficult for students to understand professional English, it is necessary to spend a lot of time on improving their professional English. For this reason, the focus of teaching is still on reading and translation. Relying on the teaching of textbooks, accounting for half of the total class hours, the remaining 1/2 of the class hours try new teaching plans and teaching designs, aiming at enriching the teaching content, stimulating students' interest in learning, as shown in the weekly teaching arrangements, one class to teach textbook content, one class to expand learning. These reforms and explorations are mainly carried out in the following three aspects:

A. To Achieve the Organic Combination of "Specialty" and "English" in the Goal of Teaching

Traditional ESP teaching tends to think that the students just need to memorize some professional vocabulary and translate professional literature. The emphasis of teaching is too much on the re-learning of professional knowledge, while ignoring the linguistic nature of English. The so-called "organic combination" should first achieve the teaching of "specialty" and "English" ; secondly, pay attention to the correlation and coordination between "specialty" and "English" so as to promote each other and serve the improvement of professional skills, at the same time, it can stimulate the enthusiasm of learning English with professional practice.

Teaching should be oriented to English, especially in the face of groups with weak English foundation. Therefore, supplementary learning of public English is set up in the teaching plan. It teaches English pronunciation and text reading. The professional vocabulary is longer and more difficult. It is often impossible to spell without reading. It is important to remedy the phonetic symbols. On the other hand, through the survey of students, it is found that almost no students have ever read English original books except English textbooks. Therefore, we should take one class to lead students to experience the original reading, shorten the distance between students and English, and also demonstrate a learning method for them. Under the class, throughout the semester, as part of the usual performance, students are required to memorizing APP in English according to their needs, completing the daily attendance of the punch card, and conducting statistics by the class committee. The students generally show great enthusiasm for learning. This setting is also designed to take account of the international development direction. In the field of specialty-oriented, the actual needs of the future design work should be combined to the class. Whether the traditional plane CAD drawing or the rise of BIM technology of building information model, the shortcut key is a good carrier for the combination of specialty and English. Students are required to summarize the AutoCAD and Revit shortcuts and full-name definitions in groups. Being able to learn English and assist in practical operation is also a favorite learning content for students.

B. In Terms of Teaching Orientation and Content, We should Pay Attention to Teaching output and enrich Teaching Content

The so-called teaching output requires that teaching should be oriented to the practical application of skills, pay attention to the improvement of learners' abilities, pay attention to social needs, and be visualized and measurable. Only by combining curriculum with society and applying and feeding back the knowledge learned to society can such curriculum have teaching output.

For the students of the applied technology orientation, on the one hand, software keyboard learning is set up as shown above, and smaller operation topics are set up to enable students to learn and test in real time, supplemented by dictation and final examination; on the other hand, students in the applied technology orientation are asked to participate in the project. Group discussion and proposal of foreign cooperation project can help students understand social needs and clear career orientation; for students of technical research direction, set up the process learning tasks of writing requirements of scientific and technological papers, literature retrieval, literature analysis, and translation of graduation design abstracts; for international development direction, set up the process learning tasks of scientific and Technological Papers writing requirements, literature retrieval, literature analysis, and translation of graduation design abstracts. In order to make this link more interesting, the theme of "Let's Travel Together" is set up to discuss and study. Each group decides the place of travel by drawing lots, and the homework requirements must be embedded in the Case-sharing related to

the specialty. In view of the direction of innovation and entrepreneurship, we set up the topic of "Let's Travel Together". In addition to the requirement that environmental protection micro videos be completed in combination with English, subject types are not limited and students are given full play. The final submissions include microfilms, micro documentaries, micro interviews and other forms. On the occasion of World Earth Day, in cooperation with the support of the College, the "Care for the World" was launched. The micro-video contest of "N Trifles of The Environment" not only promotes curriculum learning, but also produces good public welfare effects.

These teaching links were designed in four directions at the beginning of the design, but in fact they are cross-cutting, infiltrating and complementary, aiming at serving the training objectives of the "Four-Four System", outputting teaching results, and achieving graduation-oriented, employment-oriented and social-oriented.

C. On the Teaching Mode, Exploring Information-based Teaching Conform to the Needs of the Times

Under the background of the rapid development of the information age, it is imperative to improve the teaching methods by means of information technology. A number of mobile teaching assistants, such as Cloud Class [4], Jia Class and Super Star Panya, have emerged, which provide technical branches for the exploration of new teaching methods such as "Flipping Classroom", "Dividing Classroom" and "Hybrid Teaching [5]". With the deepening of education informationization, it is advocated that the advantages of traditional teaching should be combined with those of digital teaching. The two advantages complement each other so that mobile phones can become teachers' assistants and students' learning partners. Taking cloud class as an example, many functions, such as rapid roll call, brainstorming, voting questionnaire, question-answering and discussion, group task, and so on, can be realized. It can effectively promote the interaction between teachers and students, students and students. The learning form is more lively and rich.

It also meets the learning needs of young people at present. For example, the activity of "Let's Travel Together": before the last class is over, the voting and drawing of lots should be completed in the cloud class; after class, the teacher establishes group learning activities and publishes learning requirements; after the activity, the students should join their own groups, and before the next class, they should communicate and interact to complete the task division. The first draft of PPT, data collection and collation, can be written, voice, photos, videos and other ways to record the group's learning traces; after the formal start of the course, first reserve 20 minutes for the group to prepare the rehearsal time, do the final collation, and submit the finished homework in the cloud class, and then start the group report display. Scoring can be completed by teachers or designated students, or can be scored in proportion in some flexible way. Comment and interaction can be completed under the works of each group, teaching feedback timely and effective, teaching links compact and orderly, students participate in a high degree, and as students are familiar with this teaching model, they are in

pre-class classes. The learning is also more and more active, organizational coordination ability and learning ability have been improved to a certain extent.

IV. PROBLEM IN TEACHING REFORM

A. The Construction of Teachers

As an engineering major, the combination of learning and engineering practice is the students' demand and the teachers' teaching goal. However, most of the university teachers are directly engaged in education after graduation, and have little engineering experience. Therefore, it is necessary to vigorously promote and implement the "Dual-Teacher system"[6].

B. The Construction of Teaching Facilities

Information-based teaching should have good network, hardware and software support. Education industry should also realize informationization. Restrict the Internet in order to prevent students from playing games can not block the penetration and development of the Internet. The most important is to encourage teachers to explore the friendly use of the Internet, and to do a good job in guiding students.

C. The Teaching Mode

Discussion teaching mode is very effective for bringing students' initiative into full play. However, for large classes with more than 60 students, it is still difficult to organize classes. Delays occur from time to time. It is worth pondering in teaching contents and methods. At the same time, the network provides convenience, it increased teachers' workload. Education should be more professional, and teachers are very necessary to receive teaching skills training.

D. The Essential Function of Education

Network application improves people's technical operation level, but excessive dependence on technical means will also lead to the degradation of teaching skills, which is a reason for modern people to forget words. Education should go forward, but also pay attention to returning to the original intention.

V. SUMMARY

Although there are many problems in the exploration of hybrid teaching reform of professional English, the overall effect of teaching is getting better and better. Students' initiative in learning is enhanced. Communication and mutual assistance increase the depth of learning. Cooperative learning also improves students' self-confidence. Teaching assistant software provides important big data for teachers, helping them to improve the teaching. The teaching content is closer to the "four-four system" training goal. It's believed that future teaching will be improved and better serve the training needs of Applied Undergraduate talents.

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